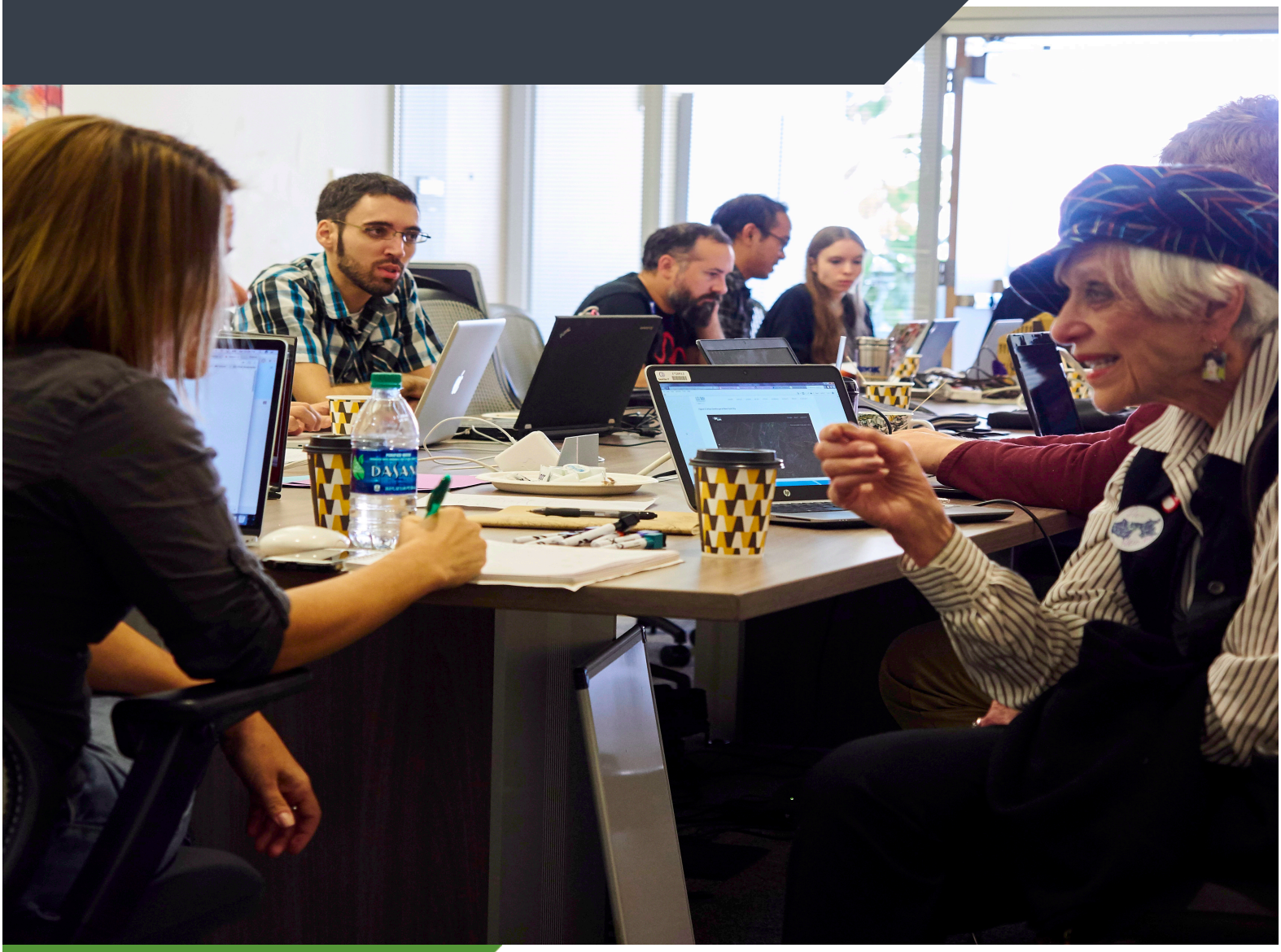
AARP CHALLENGE GRANT FINAL REPORT

SEATTLE: A CITY FOR ALL



POWERFUL TECHNOLOGY SOLUTIONS
FOR THE CITY AND PUBLIC WE SERVE

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Seattle
Information Technology

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SUMMARY

The City of Seattle is a national leader in bringing technological innovation to bear on difficult civic and social problems. As part of its commitment to becoming a more age-friendly city, outlined in City Council Resolution 31739, the Human Services Department and Seattle IT partnered to create a civic technology event, which allows the City to collaborate with our tech-savvy community members on potential solutions to age-related challenges.

The resulting event was a hackathon called "A City for All." Scheduled to coincide with the National Day of Civic Hacking on September 23, the event was held September 22-24 in Seattle's City Hall. It was produced in partnership with the AARP, which provided $10,000 in prize funds for winning teams through its Challenge Grant, as well as 4 other City departments and 15 community organizations.

The event kickoff provided an opportunity for participants to learn more about the Age-Friendly Seattle initiative, related challenges, and project ideas sponsored by experts, as well as to network with mentors from across the community. It featured welcome remarks by Seattle City Council Member Sally Bagshaw, a keynote lecture by University of Waterloo's Colin Ellard, and lightning talks by the City of Seattle's Demographer, Diana Canzoneri, in partnership with Tableau Software's Jenny Richards; University of Washington post-doctoral fellow Tim Thomas; and AARP's Amanda Frame.

Following the talks, there was an opportunity for brainstorming and networking between participants and mentors, at the end of which 9 teams formed. These teams worked together all weekend on their projects, which they presented on Sunday afternoon before a panel of judges from the City of Seattle, AARP, Impact Hub Seattle, Microsoft, Socrata, and Tableau.

There were four prizes: Best Overall Innovation, won by Team Pandora for Streets, which built a map to incorporate smells, noises, and other street-level information about the City; Best Accessibility Hack, won by team GoInfo Game, which gamifies the crowdsourcing of bus stop data relevant for disabled riders; and Best Use of Open Data and Best Data Visualization, won by team SeaSidewalks, which created an interface for the Seattle Department of Transportation to visualize sidewalk data and prioritize repairs based on factors such as the number of issues and the proximity to key institutions such as hospitals.

196 people registered for the event and 78 attended, with 55 staying for the entire weekend. The event received media coverage in GovTech magazine, StateScoop, and MeriTalk.

PROJECTS

The nine teams were:

- **Pandora for Streets**, which won Best Overall Innovation with a map to generate better pedestrian experiences. It aims to crowdsource information not typically considered when evaluating the urban environment with data – such as noises and smells – in addition to mapping elements such as tree canopy and points of interest from 10 sources of open data from the city, county, and federal government.
- **Reflect & Connect,** which was runner-up for Best Overall Innovation. It used the magic of technology to transform written or spoken journal entries into suggested free activities in the city, with the goal of helping people overcome loneliness and social isolation.
- **SeaSidewalks**, which won in two categories: Best Use of Open Data and Best Data Visualization. The tool visualizes data from Seattle Department of Transportation's recent sidewalk assessment, prioritizing issues as well as points of interest, such as medical facilities, and demographics, to help the Department make the best use of its limited sidewalk repair budget. It can be viewed at https://gngu.shinyapps.io/seattle_sidewalks/.
- **GoInfo Game**, which won Best Accessibility Hack with a tool gamifies crowdsourcing of bus stop data that's critical for disabled and/or older riders, then makes that data available for use in other tools. The source code is available at https://github.com/opensidewalks/goinfogame.
- **Speedy Wheels**, which was runner-up for Best Accessibility Hack, addressing the challenge of requesting specialized rides from public and volunteer services. Currently, for older or disabled riders, finding a ride can be a time-consuming challenge involving numerous phone calls and emails. Check out the presentation from Speedy Wheels at https://docs.google.com/presentation/d/1WF769VnMLI5KRlSgva6cVgCNN0ORDtl2ugF8mdPC5cc/edit#slide=id.g25763da086_0_0.
- **Find a Ride++** , which also created a website to simplify the experience of finding a specialized ride throughout King County. The tool can be viewed at https://deeglaze.github.io/findaride_hack/.
- **Access for Services**, which created a dashboard visualizing demographic data alongside Aging & Disability Services data.
- **SeaViz**, which used virtual reality to visualize 7 years of Aging & Disability Services data on a 3D map of Seattle.
- **It's All Downhill From Here**, which created a taxonomy for road information that could be useful to other app builders.

REPORT

WHAT DID YOU SET OUT TO ACCOMPLISH?

The goals of the hackathon were to:

1. Envision what it looks like for a city to be accessible to people of all ages and abilities, in the present and in the future
2. Assess the current state of the City of Seattle in terms of how well it serves people of all ages and abilities and to understand patterns of displacement and how they affect aging residents
3. Develop innovative technology and design solutions that could address current areas of urgent need

As secondary goals, we wanted to leverage this opportunity to encourage the publication of open datasets that shed light on how well our city is doing on an ongoing basis, and to build relationships across the community between people who might not otherwise interact – such as software developers and advocates who work on aging.

We also strove to create an event that would be open and welcoming to people of all ages and abilities, with roles for people without technology skills to learn and work as equally valued members of teams. We aimed to bring together technology innovators and designers with seniors and subject matter experts who can combine forces to imagine new ways of improving quality of life for all our residents, especially those who are most affected by challenges in our services and our built environment.

WHAT WERE THE RESULTS?

The City for All effort met all our goals in the following ways:

Goal 1: Envision what it looks like for a city to be accessible to people of all ages and abilities, in the present and in the future.

- Prior to the hackathon, in public outreach events, the City shared the eight dimensions of livability and invited members of the public to envision their lives here in the future. At an event at Impact Hub Seattle on July 6, more than 30 people drew their ideas for an accessible future.
- At the hackathon, keynote speaker Colin Ellard highlighted the ways that urban design can impact people's well-being, especially when it comes to social inclusion.
- The winner of "Best Overall Innovation" was an application to integrate features such as views, sounds/noise, and smells into how we map the city, helping the audience and users think about our environment across multiple dimensions of livability.

Goal 2: Assess the current state of the City of Seattle in terms of how well it serves people of all ages and abilities and to understand patterns of displacement and how they affect aging residents

- As part of the hackathon, the City released several new datasets that offer indicators into how well we are serving communities, including information on Lifelong Recreation programs offered by our Parks department and seven years of data on services provided by the City of Seattle and King County through Aging and Disability Services.
- These datasets were used in two of the hackathon projects, an Access for Services dashboard and a VR data visualization.
- One of the lightning talk speakers, Tim Thomas, highlighted data that offered insights into patterns of displacement across the City overall.

Goal 3: Develop innovative technology and design solutions that could address current areas of urgent need

- SeaSidewalks, winner of Best Use of Open Data and Best Data Visualization, was sponsored by the Seattle Department of Transportation and will help its asset management division prioritize its limited sidewalk repair budget to address the most urgent needs.
- GoInfo Game, winner of Best Accessibility Hack, built a tool to gamify crowdsourcing of data around bus stops, such as whether there is shelter, a bench, or other features, that could be provided to users of Access Map, a routing tool for mobility-impaired users, and added to the OpenStreetMaps database. This addresses an urgent need for impaired transit riders.
- Speedy Wheels and Find a Ride++ both addressed the issues of how difficult it is for qualifying riders to find and request specialized transit.

Additionally, our hackathon was:

- **Age-friendly:** Registrants ranged in age (as self-reported) from 16 to 82, with an unusually high number of participants over the age of 40 (51 registrants, or 26 percent of those who signed up). People of all ages were represented across teams and as mentors, leading to strong interactions across generations throughout the event.

- **Welcoming to people of all abilities:** We created several opportunities for people without technical knowledge to engage, including as mentors and as attendees of the kickoff talks and final presentations. We provided CART captioning for a hard-of-hearing participant throughout the event.
- **Sparking unlikely connections:** Most teams opted to work with one or more mentors from the government agencies or community organizations represented, resulting in the development of new relationships between technologists and subject matter experts, including aging residents.

WHAT WERE THE HIGHLIGHTS OF YOUR PROJECT?

Community connections: Seeing people who might otherwise never interact – students of technology, technology professionals from the community, nonprofit staff, and City officials – working together to make our city more age-friendly.

Cross-departmental collaboration: The hackathon engaged 5 City departments plus Public Health (a joint City-County agency), increasing the sense of cross-departmental responsibility for creating an age-friendly City.

Transparency: This event prompted the release of 11 new open datasets from 6 different departments that shed light on the City of Seattle's work to make our city an age-friendly community, including locations of public access computer labs, homeowner assistant programs, lifelong recreation programs, and aging and disabilities services.

Here are some highlights from our participant survey:

- "I'd love to see events like this more often, this was a ton of fun."
- "Camaraderie--everyone was very open and welcoming, no matter what experience or skill was brought to the table."
- "Well organized, broad range of passionate people from the City, clear schedule and expectations, was part of a great team, and great food!"
- "Liked that - There was data available with related issues. - Food was excellent. - It was great to collaborate with different people with different backgrounds. - Overall, event was well organized."
- "Very clear social mission, loved being able to work on problems that matter for the city and community. Significant turnout by mentors and host organizations. Great food. Clear communication before and during the event."

WHAT COULD HAVE BEEN BETTER?

We would have loved to see more participation from our technology community. In the end, we had a 60 percent dropout rate from those who registered to those who attended. This is not uncommon for free events in Seattle, and the unseasonably warm, sunny weather of that weekend likely impacted the eventual turnout.

One thing we are always looking at is how to develop technology solutions to the level that they could actually be deployed, maintained, marketed, and put into use. This is not something that can be built into the hackathon structure itself. However, we hope that by continuing to stimulate innovation around areas of greatest need, we can build support for the future development of such tools.

We would also like to have a way to archive and showcase these innovations, as a way of rewarding contributors, better documenting what they created, and facilitating ongoing development.

WHAT LONGER-TERM IMPACT DO YOU EXPECT? NEXT STEPS?

- **Hackathon impact:** The video content of talks from the kickoff has been requested by one of our partner departments to help inspire thinking about what makes our community healthy for people of all ages.
- **Projects:** Several of the teams continue to be in touch with sponsors about future development, including Team Pandora for Streets, Speedy Wheels, and Find a Ride++.
- **Participant impact:** We hope this hackathon inspires participants to think differently about their city and to support initiatives to make our community work for people of all ages and abilities.